



UNITED STATES PATENT AND TRADEMARK OFFICE

RLW
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,304	03/29/2001	Alain Brochez	BROC3001/JEK	6723

7590 03/23/2004

Bacon & Thomas
4th Floor
625 Slaters Lane
Alexandria, VA 22314

EXAMINER

FLANDRO, RYAN M

ART UNIT	PAPER NUMBER
----------	--------------

3679

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,304

Applicant(s)

BROCHEZ, ALAIN

Examiner

Ryan M Flandro

Art Unit

3679

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-36, 39, 41, 44-50 and 53-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29, 45, 46, 48 and 53-57 is/are allowed.
- 6) ☒ Claim(s) 30-33, 35, 41, 44, 47 and 49 is/are rejected.
- 7) ☒ Claim(s) 34, 36, 39, 50 and 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

2. Applicant is advised that the substitute specification filed 1/31/03 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: the statement as to a lack of new matter under 37 CFR 1.125(b) is missing.

Claim Objections

3. Claims 31, 34, 36, 39, 47 and 58 are objected to because of the following informalities:
 - a. Claim 31. Recitation of "and/or" should be specified as one or the other for clarity. Claim 34 depends therefrom.
 - b. Claim 36. The term "and" in line 5 of the claim should be removed. Claim 39 depends therefrom.
 - c. Claim 47. The term "as" in the second to last line of the claim should be removed.
 - d. Claim 58. The claim should begin with the word "A" since it is an independent claim.
 - e. Appropriate correction is required.

4. Claim 50, which depends from and includes all of the limitations of claim 49, is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 58. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the last four lines of the claim recite that the “lip projection is sufficiently large so as to compensate for production tolerances, lacquer thicknesses and have a working force on the corner joint that can only be increased by enlarging a deposit surface.” These limitations render the claim indefinite because they recite abstract sizes and tolerances that would not be apparent to one having ordinary skill in the art. Moreover, the specification does not provide any further definition of such sizes and tolerances.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3679

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 31 is rejected under 35 U.S.C. 102(b) as being anticipated by Hagerty et al (US 2,861,659) (Hagerty). Hagerty clearly shows and discloses a corner joint for joining two frame side members **10,11** having attachment channels **18** and mitered end portions, said joint including at least one corner piece **20** having two insert parts **21,22** joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part **21,22** configured to be received by the mitered end portions of a respective one of the attachment channels **18** of the side members **10,11**; wherein the corner joint is provided with locking means **25,32** comprising of upset material parts **32** in the shape of a lip projection made by means of slantingly press-in parts **32** of the side members **10,11** which cooperate with notches **25** defined on the corner piece **20**; wherein the insert pieces **21,22** include at least one notch **25**, said notches having a triangular shape (see figures 1-6; columns 1-2).

9. Claims 32, 33, 41, 44 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Ekstein (US 3,797,194).

a. Claim 32. Ekstein clearly shows and discloses a corner joint for joining two frame side members **12,14** having attachment channels and mitered end portions, said joint including at least one corner piece **16** having two insert parts **74,76** joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part **74,76** configured to be received by the mitered end portions of a respective one of the attachment channels of the side members **12,14**; wherein the corner joint comprises a lip projection **108 or 110** of at least one up set material part that is defined by slantingly

press-in parts of the attachment channels of the side members **12,14**, the insert parts **74,76** including at least one locking element **82 or 92 or 182 or 192** arranged to press the lip projection **108 or 110**; wherein said lip projection **108 or 110** includes a contact surface **112,114** disposed at one end thereof which is arranged to cooperate with a contact side **84,94** of the insert part **74,76**; wherein the at least one locking element **82 or 92 or 182 or 192** includes a contact surface **83 or 93 or 183 or 102** geometrically configured to substantially contact the entire length of the lip projection **108 or 110** (see figures 1-3; columns 1-3).

b. Claim 33. Ekstein further shows that the contact surface **83 or 93 or 183 or 102** of the at least one locking element **82 or 92 or 182 or 192** extends in a direction of the deflection of the lip projection **108 or 110** (see figures 2 and 3).

c. Claim 41. Ekstein further shows that the insert part **74** includes a resilient element **77** connected at one end **81** to one end **181** of a resilient element **177** of the corresponding insert part **76** (see figures 1-3).

d. Claim 44. Ekstein clearly shows and discloses a corner joint for joining two frame side members **12,14** having attachment channels and mitered end portions, said joint including at least one corner piece **16** having two insert parts **74,76** joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part **74,76** configured to be received by the mitered end portions of a respective one of the attachment channels of the side members **12,14**; wherein the corner piece **16** and the attachment channels define mutually non-parallel surfaces (e.g. surface **194** of the corner piece **16** and surfaces **52** of the attachment channels in figures 2 and 3) with the exception

of a region wherein a lip projection **108 or 110** extending from one side of the attachment channels is urged against a locking element **102 or 103** extending from the corner piece **16** (see figure 3).

e. Claim 47. Ekstein clearly shows and discloses a corner joint for joining two frame side members **12,14** having attachment channels and mitered end portions, said joint including at least one corner piece **16** having two insert parts **74,76** joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part **74,76** configured to be received by the mitered end portions of a respective one of the attachment channels of the side members **12,14**; wherein the corner piece includes a clearance (see area defined by sections **78,100,178**) generally defined at an inside corner where the insert parts **74,76** connect and having a hook-shaped profile (see figures 1 and 2).

Claim Rejections - 35 USC § 103

10. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hustadt, as applied above, in view of Borys (US 4,651,482). Hustadt clearly shows and discloses a corner joint **1** for joining two frame side members **3,4** having attachment channels **19,20** and mitered end portions, said joint **1** including at least one corner piece **5** having two insert parts (bounded by countersurfaces **7** and **8**) joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part **7,8** configured and dimensioned to be received by the mitered end portions of a respective one of the attachment channels **19,20** of the side members **3,4**. Hustadt lacks disclosure of each of said insert parts being geometrically configured in the

shape of a triangle having an apex directed along a longitudinal axis of an attachment channel as well as a filling compound being provided in the attachment channel before an insert part is placed in the attachment channel of each respective side member. Borys, however, teaches each of two insert parts **20,22** being in the shape of a triangle having an apex **30,31** directed along the longitudinal axis of the attachment channel **12,14** to provide a cutting edge (see column 3 lines 55-63) as well as the step of before an insert part **20,22** is placed in an attachment channel of a respective side member **12,14**, a filling compound **16** is provided in the attachment channel in order to seal any gaps by which ambient moisture could enter (see figures 1-3; column 2 lines 10-37; column 2 line 63 – column 4 line 53). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made modify the corner joint of Hustadt by providing triangular shaped insert parts to provide a cutting edge and a filler in the attachment channels in order to provide a seal against moisture as taught by Borys.

11. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hustadt, as applied above, in view of Leopold (US 4,530,195). Hustadt clearly shows and discloses a corner joint **1** for joining two frame side members **3,4** having attachment channels **19,20** and mitered end portions, said joint **1** including at least one corner piece **5** having two insert parts (bounded by countersurfaces **7** and **8**) joined at connecting ends and positioned relative to one another at a predetermined angle, each insert part **7,8** configured and dimensioned to be received by the mitered end portions of a respective one of the attachment channels **19,20** of the side members **3,4**. Hustadt lacks disclosure of the connecting ends of the insert parts being connected with a hinge having a rotational axis positioned near inner walls of said attachment channels. Leopold,

however, teaches the connecting ends of insert parts **82,84** being connected with a hinge **86** in order to “connect the body portions together to enable pivoting motion of the segments about the juncture and a connecting arrangement for securing the body portions in place with respect to each other when the frame segments are in final desired orientation (see figures 6-8; column 7 lines 36-48). Moreover, once the connecting ends of the insert parts **82,84** are inserted into the attachment channels, the hinge **86** can be considered to be near the inner walls of the attachment channel. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made modify the corner joint of Hustadt by providing a hinge at the connection of the insert parts and having a rotational axis positioned near the inner walls of the attachment channel in order to provide the ability to pivot the insert parts with respect to one another as taught by Leopold.

Response to Arguments

12. Applicant’s arguments with respect to claims 36 and 39 are persuasive in view of the amendments to these claims. Allowability has been indicated below.

13. Applicant's arguments with respect to claims 32, 33, 41, 44 and 47 have been considered but are moot in view of the new ground(s) of rejection which were necessitated by amendment. See above.

14. Applicant's arguments with regard to claim 35 have been fully considered but they are not persuasive. As pointed out above, the combination of Hustadt and Borys includes each and

every limitation set forth in claim 35. Importantly, although Borys discloses injecting a filling into the corner joint to provide a sealing function whereas applicant recites such filling to make the channels solid inside, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

15. With regard to Applicant's arguments regarding claim 49, recitation of the hinge having a rotational axis near the inner walls of the attachment channels does not distinguish over the combination of Hustadt and Leopold as applied above. Specifically, recitation of the "inner walls of the attachment channel" can mean, when read broadly, the inside facing walls of the channels. The rejection is maintained as set forth above.

Allowable Subject Matter

16. Claims 29, 45, 46, 48 and 53-57 are allowed for the reasons set forth in the previous Office action.

17. Claims 36, 39 and 58 are objected to for the reasons set forth above, but are otherwise allowable for the reasons set forth in the previous Office action.

18. Claims 34 and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to corner joints:

U.S. Patent 3,604,739 to Carlisle (discloses clearances at or near the joined ends of insert parts)

U.S. Patent 2,792,918 to Olsen (see especially figure 4, elements 16 and 19)

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M Flandro whose telephone number is (703) 305-6952.

The examiner can normally be reached on 8:30am - 5:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMF

Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670